

## ABSTRACT

The present invention relates to a series of plasmid-based expression vectors and methods for systematically screening entire genomes for gene-coding fragments. The compositions and methods described herein facilitate the detection of open reading frames within a DNA sequence. In this manner, the ORF selection vectors of the invention may be utilized in the isolation of genetic vaccine candidates for expression library immunization. The invention allows for the rapid, efficient screening of large genomes of eukaryotic parasites, for example, for determining protective gene-coding DNA fragments

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